

1638
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Page 1 of 5

AUG 06 2002

TECH CENTER 1600/2900



1600

RAW SEQUENCE LISTING

DATE: 07/29/2002

PATENT APPLICATION: US/09/709,457

TIME: 14:07:56

Input Set : A:\EP.txt

Output Set: N:\CRF3\07292002\I709457.raw

ENTERED

3 <110> APPLICANT: Scandinavian Biotechnology Research (ScanBi AB) AB, ORG. NO. 556577-
4 8445
6 <120> TITLE OF INVENTION: USE OF A CLASS OF ENZYMES AND THEIR ENCODING GENES TO
INCREASE THE
7 OIL CONTENT IN TRANSGENIC ORGANISMS
C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/709,457
C--> 9 <141> CURRENT FILING DATE: 2002-11-13
W--> 0 <130> FILE REFERENCE:
9 <160> NUMBER OF SEQ ID NOS: 2
11 <210> SEQ ID NO: 1
13 <211> LENGTH: 1833
15 <212> TYPE: DNA
17 <213> ORGANISM: Saccharomyces cerevisiae
21 <400> SEQUENCE: 1
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24 tccgcagaag ccaacaaacg gcattcggtc acgtacgata acgtgatcct gccacaggag 120
25 tccatggagg ttctgccacg gtcgtctacc acgtcgctgg tggagccagt ggagtcgact 180
26 gaaggagtgg agtcgactga ggcggaacgt gtggcaggga agcaggagca ggaggaggag 240
27 taccctgtgg acgcccacat gcaaaaagtac ctttcacacc tgaagagcaa gtctcggtcg 300
28 aggttccacc gaaaggatgc tagcaagtat gtgtcgtttt ttggggacgt gagttttgat 360
29 cctcgcccca cgctcctgga cagcgccatc aacgtgccct tccagacgac ttccaaaagt 420
30 ccggtgctgg agaaacagct caaaaattta cagttgacaa agaccaagac caaggccacg 480
31 gtgaagacta cgggtgaagac tacggagaaa acggacaagg cagatgcccc cccaggagaa 540
32 aaactggagt cgaacttttc agggatctac gtgttcgcat ggatgttctt gggctggata 600
33 gccatcaggt gctgcacaga ttactatgcg tcgtacggca gtgcatggaa taagctggaa 660
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36 aagtggactg ggttcgttgc agtgagcatc ttcgagttgg ctttcatccc cgtgacgttc 840
37 ccattttacg tctactactt tgatttcaac tgggtcacga gaatcttcct gttcctgcac 900
38 tccgtggtgt ttgttatgaa gagccactcg tttgcctttt acaacgggta tctttgggac 960
39 ataaagcagg aactcgagta ctcttccaaa cagttgcaaa aatacaagga atctttgtcc 1020
40 ccagagaccc gcgagattct gcaaaaaagt tgcgactttt gccttttcga attgaactac 1080
41 cagaccaagg ataacgactt cccaacaac atcagttgca gcaatttctt catgtttctgt 1140
42 ttgttccccg tcctcgtgta ccagatcaac tacccaagaa cgtcgcgcat cagatggagg 1200
43 tatgtgttgg agaaggtgtg cgccatcatt ggcaccatct tcctcatgat ggtcacggca 1260
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52 ctacgggcaa gaccgcagtt gtccaacgtt gtcttttcgt ttggtgtctg ttcagggcc 1800

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59 <211> LENGTH: 610
60 <212> TYPE: PRT
61 <213> ORGANISM: Saccharomyces cerevisiae
W--> 62 <400> SEQUENCE: 2
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64 1 5 10 15
66 Arg Arg Leu Asn Ser Ala Glu Ala Asn Lys Arg His Ser Val Thr Tyr
67 20 25 30
69 Asp Asn Val Ile Leu Pro Gln Glu Ser Met Glu Val Ser Pro Arg Ser
70 35 40 45
72 Ser Thr Thr Ser Leu Val Glu Pro Val Glu Ser Thr Glu Gly Val Glu
73 50 55 60
75 Ser Thr Glu Ala Glu Arg Val Ala Gly Lys Gln Glu Gln Glu Glu Glu
76 65 70 75 80
78 Tyr Pro Val Asp Ala His Met Gln Lys Tyr Leu Ser His Leu Lys Ser
79 85 90 95
81 Lys Ser Arg Ser Arg Phe His Arg Lys Asp Ala Ser Lys Tyr Val Ser
82 100 105 110
84 Phe Phe Gly Asp Val Ser Phe Asp Pro Arg Pro Thr Leu Leu Asp Ser
85 115 120 125
87 Ala Ile Asn Val Pro Phe Gln Thr Thr Phe Lys Gly Pro Val Leu Glu
88 130 135 140
90 Lys Gln Leu Lys Asn Leu Gln Leu Thr Lys Thr Lys Thr Lys Ala Thr
91 145 150 155 160
93 Val Lys Thr Thr Val Lys Thr Thr Glu Lys Thr Asp Lys Ala Asp Ala
94 165 170 175
96 Pro Pro Gly Glu Lys Leu Glu Ser Asn Phe Ser Gly Ile Tyr Val Phe
97 180 185 190
99 Ala Trp Met Phe Leu Gly Trp Ile Ala Ile Arg Cys Cys Thr Asp Tyr
100 195 200 205
102 Tyr Ala Ser Tyr Gly Ser Ala Trp Asn Lys Leu Glu Ile Val Gln Tyr
103 210 215 220
105 Met Thr Thr Asp Leu Phe Thr Ile Ala Met Leu Asp Leu Ala Met Phe
106 225 230 235 240
108 Leu Cys Thr Phe Phe Val Val Phe Val His Trp Leu Val Lys Lys Arg
109 245 250 255
111 Ile Ile Asn Trp Lys Trp Thr Gly Phe Val Ala Val Ser Ile Phe Glu
112 260 265 270
114 Leu Ala Phe Ile Pro Val Thr Phe Pro Ile Tyr Val Tyr Tyr Phe Asp
115 275 280 285
117 Phe Asn Trp Val Thr Arg Ile Phe Leu Phe Leu His Ser Val Val Phe
118 290 295 300
120 Val Met Lys Ser His Ser Phe Ala Phe Tyr Asn Gly Tyr Leu Trp Asp
121 305 310 315 320
123 Ile Lys Gln Glu Leu Glu Tyr Ser Ser Lys Gln Leu Gln Lys Tyr Lys
124 325 330 335
126 Glu Ser Leu Ser Pro Glu Thr Arg Glu Ile Leu Gln Lys Ser Cys Asp

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127		340		345		350	
129	Phe Cys Leu	Phe Glu Leu Asn Tyr	Gln Thr Lys Asp	Asn Asp Phe Pro			
130		355		360		365	
132	Asn Asn Ile	Ser Cys Ser Asn Phe	Phe Met Phe Cys	Leu Phe Pro Val			
133		370		375		380	
135	Leu Val Tyr	Gln Ile Asn Tyr	Pro Arg Thr Ser	Arg Ile Arg Trp Arg			
136	385		390		395		400
138	Tyr Val Leu	Glu Lys Val Cys Ala	Ile Ile Gly Thr	Ile Phe Leu Met			
139		405		410		415	
141	Met Val Thr	Ala Gln Phe Phe Met	His Pro Val Ala	Met Arg Cys Ile			
142		420		425		430	
144	Gln Phe His	Asn Thr Pro Thr	Phe Gly Gly Trp	Ile Pro Ala Thr Gln			
145		435		440		445	
147	Glu Trp Phe	His Leu Leu Phe	Asp Met Ile Pro	Gly Phe Thr Val Leu			
148		450		455		460	
150	Tyr Met Leu	Thr Phe Tyr Met	Ile Trp Asp Ala	Leu Leu Asn Cys Val			
151	465		470		475		480
153	Ala Glu Leu	Thr Arg Phe Ala	Asp Arg Tyr Phe	Tyr Gly Asp Trp Trp			
154		485		490		495	
156	Asn Cys Val	Ser Phe Glu Glu	Phe Ser Arg Ile	Trp Asn Val Pro Val			
157		500		505		510	
159	His Lys Phe	Leu Leu Arg His	Val Tyr His Ser	Ser Met Gly Ala Leu			
160		515		520		525	
162	His Leu Ser	Lys Ser Gln Ala	Thr Leu Phe Thr	Phe Phe Leu Ser Ala			
163		530		535		540	
165	Val Phe His	Glu Met Ala Met	Phe Ala Ile Phe	Arg Arg Val Arg Gly			
166	545		550		555		560
168	Tyr Leu Phe	Met Phe Gln Leu	Ser Gln Phe Val	Trp Thr Ala Leu Ser			
169		565		570		575	
171	Asn Thr Lys	Phe Leu Arg Ala	Arg Pro Gln Leu	Ser Asn Val Val Phe			
172		580		585		590	
174	Ser Phe Gly	Val Cys Ser Gly	Pro Ser Ile Ile	Met Thr Leu Tyr Leu			
175		595		600		605	
177	Thr Leu						
178		610					

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/709,457

DATE: 07/29/2002

TIME: 14:07:57

Input Set : A:\EP.txt

Output Set: N:\CRF3\07292002\I709457.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:0 M:201 W: Mandatory field data missing, <130> FILE REFERENCE

L:62 M:283 W: Missing Blank Line separator, <400> field identifier